

Vita

John V. Cortinas Jr.

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Education

B.S. 1987 Metropolitan State College of Denver, Denver, Colorado (Meteorology)

Ph.D. 1992 Georgia Institute of Technology, Atlanta, Georgia (Geophysical Sciences)

Employment History

1985-1987	Computer Programmer, Computer Sciences Corp., Denver, Colorado.
1987-1992	Graduate Research Assistant, Georgia Institute of Technology, Atlanta, Georgia.
1992	Research Assistant, Georgia Institute of Technology, Atlanta, Georgia.
1992-present	Research Meteorologist, National Severe Storms Laboratory and the University of Oklahoma, Cooperative Institute for Mesoscale Meteorological Studies, Norman, Oklahoma.
1997-present	Adjunct Assistant Professor, University of Oklahoma, School of Meteorology, Norman, Oklahoma.
2001-present	Assistant Director, University of Oklahoma, Cooperative Institute for Mesoscale Meteorological Studies, Norman, Oklahoma

Honors and Awards

LULAC Scholarship, 1984
Society of Hispanic Professional Engineers Scholarship, 1985
Issacson Scholarship, 1984, 1985
Hispanic Educational Scholarship, 1986
Presidential Fellowship, Georgia Institute of Technology, 1987-91
NOAA/Office of Oceanic and Atmospheric Research, Scientific Paper of the Year, 1999
Who's Who in Science and Engineering, 5th edition (2001-2002), 6th edition, (2002-2003)
Who's Who in America, 55th edition (2001-2002)

Professional Activities

Member, Canadian Meteorological and Oceanographic Society (1999-present)
Associate Editor, *Monthly Weather Review*, 2000-present
Associate Editor, *Weather and Forecasting*, 1996-1998
Coordinator, Research Experiences for Undergraduates Summer Program, 1993 and 1995
Coordinator, PHASE Summer Program at the National Severe Storms Laboratory (NSSL), 1996
Member, American Meteorological Society (AMS) 1983-present
Member, AMS Board on Women and Minorities, 1995-1999
Chair, AMS Minority Scholarship Committee, 2000
Member, National Weather Association
Member, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
Member, Board of Directors, 1998-2000
National Treasurer, 2000-2001

Chair, SACNAS Summer Internship Workshop 1996-1999
Chair, Atmospheric Science Symposium, 1996 and 2000 Annual Meetings
Chair, Oceanography Scientific Symposium, 1999 Annual Meeting
Mentor, EARTHSTORM program, 1994-present
President, Geophysical Sciences Organization, Georgia Institute of Technology, 1990-1991

Thesis Supervised

Robbins, C, 1999: An investigation of the local and synoptic environments associated with freezing rain in the contiguous United States. M.S. thesis, University of Oklahoma.

Classes Taught

METR 1014 Introduction to Weather and Climate, University of Oklahoma, Fall 1998, Spring 2001
METR 3980 Honors Research, University of Oklahoma, Fall 1998
Cooperative Program for Operational Meteorology, Education, and Training, (COMET), Winter
Precipitation, RFC/HPC Hydromet Class, November (01-1) and December (01-2) 2000.

Funded Proposals

NOAA, Predicting Precipitation Type with Mesoscale Model Output, 26K, 1996
UCAR/Cooperative Program for Meteorology, Education, and Training, Creation, Evaluation, and
Implementation of a Precipitation-Type Forecasting System, 74K, 2000-2002

Professional Development Training

Sexual Harassment Awareness, University of Oklahoma (2/22/94)
Team Dynamics, University of Oklahoma (7/30/96)
Motivating for Change and Results, University of Oklahoma (4/18/97)
How to Manage Multiple Projects, Meet Deadlines, and Achieve Objectives, Fred Pryor Seminar (6/27/97)
Orchestrating Resolution: The Impact of Leadership, University of Oklahoma (2/26/98)
Life, Learning, and Leadership, University of Oklahoma (5/18/00)
Performance Evaluation, University of Oklahoma (12/7/00)

Formal Publications

Cortinas Jr., J.V., and D.J. Stensrud, 1995: The importance of understanding mesoscale model parameterization schemes for weather forecasting. *Wea. Forecasting*, **10**, 716-740.

Cortinas Jr., J.V., J. Straka, J. Schneider, W. Beasley, and C. Machacek, 1996: The research experiences for undergraduates program: The 1995 program at the Oklahoma weather center. *Bull. Amer. Meteor. Soc.*, **77**, 2925-2936.

Stensrud, D. J., **J. V. Cortinas Jr.**, and H. E. Brooks, 1997: Discriminating Between Tornadoic and Non-tornadoic Thunderstorms Using Mesoscale Model Output. *Wea. Forecasting*, **22**, 613-632.

Cortinas, J. V., Jr., 2000 : A climatology of freezing rain over the Great Lakes region of North America. *Mon. Wea. Rev.*, **128**, 3574-3588.

Cortinas, J.V., Jr., and W. Blier, 2001: Operational Meteorology, *Encyclopedia of Atmospheric Sciences*, J. R. Holton, J. Pyle, and J. A. Curry, Ed., Academic Press, submitted

Robbins, C. C., and **J. V. Cortinas Jr.**, 2001: An investigation of the local and synoptic environments associated with freezing rain in the contiguous United States. *Wea. and Forecasting*, accepted.

Cortinas, J.V., Jr., and M. E. Baldwin, 2001: A statistical evaluation of five precipitation-type algorithms for use in operational forecasting. *Wea. and Forecasting*, in progress.

Cortinas, J.V., Jr., and C.A. Doswell III, 2001: Static stability and its association with convective outbreaks. Part I: A U.S. synoptic climatology. *Mon. Wea. Rev.*, in progress.

Doswell III, C.A., and **J. V. Cortinas Jr.**, 2001: Static stability and its association with convective outbreaks. Part II: Stability evolution during a severe weather outbreak. *Mon. Wea. Rev.*, in progress.

Cortinas, J.V., Jr., and R. L. Holle, 2001: Human observations of thunder associated with cold surface temperatures across the United States and Canada. *Wea. Forecasting*, in progress.

Informal Publications

Cortinas Jr., J.V., 1992: An investigation into the role of moist vertical drafts in the rotational development of storms. Ph.D. dissertation, Georgia Institute of Technology, 140 pp. [Available from University Microfilm, 305 N. Zeeb Rd., Ann Arbor, MI 48106]

Brooks, H.E., D.J. Stensrud, and **J.V. Cortinas Jr.**, 1993: The use of mesoscale models to initialize cloud scale models for convective forecasting. Preprints, *13th Conf. on Wea. Analysis and Forecasting*, Vienna, VA, Amer. Meteor. Soc., 301-304.

Cortinas Jr., J.V., D.J. Stensrud, and H.E. Brooks, 1993: A simulation of a severe weather event in the southeastern United States. Preprints, *17th Conf. Severe Local Storms*, St. Louis, Missouri, Amer. Meteor. Soc., 623-627.

Cortinas Jr., J.V., and D.J. Stensrud, 1993: A simulation of a convective event using the MM4 and a cloud scale model. Preprints, *3rd PSU/NCAR Mesoscale Model User's Boulder, Colorado Workshop*, 42.

Cortinas Jr., J.V., and D.J. Stensrud, 1994: The mesoscale features associated with severe convective weather. Preprints, *10th Conf. on Numerical Wea. Prediction*, Portland, Oregon, Amer. Meteor. Soc., 606-608.

Cortinas Jr., J.V., and C. Crisp, 1995: Preparing a freezing precipitation forecast using a mesoscale model. Preprints, *14th Conf. on Wea. Analysis and Forecasting*, Dallas, Texas, Amer. Meteor. Soc., 171-175.

Cortinas Jr., J.V., 1995: Unlocking the secrets of mother nature: Studies in the field of meteorology. Preprints, *1995 Society of Mexican American Engineers and Scientists National Symposium and Career Fair*, Los Angeles, CA.

Cortinas Jr., J.V., J. Schneider, J. Straka, W. Beasley, and C. Machacek, 1996: The 1995 research experiences for undergraduates program at the Oklahoma Weather Center. Preprints, *5th Symposium on Education*, Atlanta, Georgia, Amer. Meteor. Soc., 72-78.

Cortinas Jr., J.V., 1996: Comparing EMC's eta and mesoeta models for three severe convective events. Preprints, *18th Conf. Severe Local Storms*, San Francisco, California, Amer. Meteor. Soc., 250-254.

Janish, P. R., C. A. Crisp, **J. V. Cortinas, Jr.**, R. L. Holle, and R. H. Johns, 1996: Development of an ingredients-based approach to forecasting hazardous winter weather in an operational environment. Preprints, *15th Conference on Weather Analysis and Forecasting*, Norfolk, VA, Amer. Meteor. Soc., 56-59.

- Jacobi, D. M., **J. V. Cortinas Jr.**, and R. G. Roper, 1996: A preliminary study of storm-relative environmental helicity trends in a prestorm environment. Preprints, 15th Conference on Weather Analysis and Forecasting, Norfolk, VA, Amer. Meteor. Soc., 395-398.
- Robbins, C. C., and **J. V. Cortinas Jr.**, 1996: A climatology of freezing rain in the contiguous United States: Preliminary results. Preprints, 15th Conference on Weather Analysis and Forecasting, Norfolk, VA, Amer. Meteor. Soc., 124-126.
- Brooks, H. E., **J. V. Cortinas Jr.**, P. Janish, and D. J. Stensrud, 1996: Applications of short-range numerical ensembles to the forecasting of hazardous winter weather. Preprints, 11th Conference on Numerical Weather Prediction, Norfolk, VA, Amer. Meteor. Soc., 127-130.
- Brooks, H.E., **J. V. Cortinas Jr.**, and R. Johns, 1996: Experimental winter hazards forecasting at the Storm Prediction Center: Verification results for probabilistic freezing rain forecasts. Preprints, 15th Conference on Weather Analysis and Forecasting, Norfolk, VA, Amer. Meteor. Soc., J70-J71.
- Holle, R. L., **J. V. Cortinas Jr.**, and C. C. Robbins, 1998: Winter thunderstorms in the United States. Preprints, 16th Conference on Weather Analysis and Forecasting, Phoenix, AZ, Amer. Meteor. Soc., 298-300.
- Cortinas, J.V., Jr.**, and C. A. Doswell III, 1998: A climatology of tropospheric static stability across the United States. Preprints, 16th Conference on Weather Analysis and Forecasting, Phoenix, AZ, Amer. Meteor. Soc., 409-411.
- Cortinas, J.V., Jr.** and P. Sullivan, 1999: An example of a successful teacher-scientist partnership in the Oklahoma Climatological Survey's Earthstorm program. 8th Symposium on Education, Dallas, TX, Amer. Meteor. Soc., 163-166.
- Holle, R. L., and **J. V. Cortinas Jr.**, 1999: Thunderstorms observed at surface temperatures near and below freezing across North America. Preprints, 19th Conference on Severe Local Storms, Minneapolis, MN, Amer. Meteor. Soc., 705-708.
- Cortinas, J. V., Jr.**, 1999: A climatology of freezing rain over the Great Lakes. Preprints, 11th Conference on Applied Climatology, Dallas, TX, Amer. Meteor. Soc., 257-262.
- Cortinas, J. V., Jr.**, and A. Velasco, 1999: Solving the mysteries of the big blue planet. *SACNAS News*, **3**, 14-16.
- Cortinas, J. V., Jr.**, Robbins, C, Bernstein, B., and J. W. Strapp, 2000: A climatology of freezing rain, freezing drizzle, and ice pellets across North America. 9th Conference on Aviation, Range, and Aerospace Meteorology, Orlando, FL, Amer. Meteor. Soc., 292-297.